COMMENT ON THE PROPOSED NEOTYPE FOR *POTERIOCRINUS HEMISPHERICUS* SHUMARD, 1858 (CRINOIDEA). Z.N.(S.) 1905

(see volume 27, pages 202–204)

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This letter supports the proposed fixation of a neotype for *Poteriocrinus hemisphericus* Shumard, 1858, by Raymond C. Moore and Harrell L. Strimple.

The authors of the proposal indicate that Shumard's original specimens have probably been destroyed by fire. We would like to amplify on this statement. The specimens collected by G. S. Swallow and B. F. Shumard during the early geological surveys of Missouri were eventually housed at the University of Missouri in Columbia, Missouri. The specimens, including the type lot of *Poteriocrinus hemisphericus*, were totally destroyed by fire January 9, 1892. Confirmation of these statements is found in two articles by Charles R. Keyes. In a brief article on Swallow 'Pioneer Geology of George Clinton Swallow' (*Pan-American Geologist*, vol. 49, pp. 81–94, 1928), Keyes states that the Shumard and Swallow collections were at Columbia, that he studied them and took copious notes, and that they were subsequently destroyed by fire. In another article by Keyes, "Memorial of Garland Carr Broadhead" (*Geol. Soc. America Bull.* v. 30, pp. 13–26, 1919) Keyes states that Broadhead had spent two years arranging the Swallow and Shumard collection, that Keyes personally saw the collection in the University of Missouri museum, consisting of both types and "well-authenticated" specimens. He goes on to say, ". . . the central building of the university, which contained the collections, was completely destroyed by fire. I know of no other notes ever being taken on these unique collections and the opportunity satisfactorily to straighten out the moot questions concerning the original unfigured descriptions was lost for all time". We view this as strong confirmatory evidence that Shumard's original type lot was, indeed, destroyed.

The only other place where any of Shumard's type specimens have ever been known to be deposited was at the original quarters of the St. Louis Academy of Sciences, of which Shumard was a founder and prime mover. After this organization was disbanded, the collections were moved to Washington University, St. Louis, where they were eventually discovered, studied, and transferred to the U.S. National Museum, where the known types now are stored. These collections were studied thoroughly by E. J. Trumbull, and a complete list of the known Shumard types from St. Louis is contained in: E. J. Trumbull, "Shumard's type specimens of Tertiary mollusks from Oregon and other types formerly at Washington University, St. Louis," (*Jour. Paleontology*, vol. 32, p. 893–906, 1958). No mention is made of any fossil crinoid types in Trumbull's list. Consequently, we agree with the authors of the proposal that Shumard's original specimens are irretrievably lost and that a neotype should be designated.

The nature of Shumard's original description, and the type localities he listed, make it virtually impossible to collect new material that could certainly be known to be identical with fossils Shumard had in front of him when he wrote his description. Two of the four localities listed by him are in the Middle Pennsylvanian of Missouri and two of them are in the Lower Permian of Kansas. As many as five or six distinct species of *Delocrinus* or *Delocrinus*-like crinoids could be collected from several stratigraphic intervals at each of the vague localities given by Shumard. His original description is so generalized that almost any specimens collected from each of these four areas could be considered to belong to *Poteriocrinus hemisphericus*, even though these specimens might be assigned today to several different poteriocrinoid genera. Consequently, we are sure that the course advocated by Moore and Strimple is the best one and will serve to stabilize the nomenclature of *Delocrinus*, if approved. We support this proposal in the strongest possible terms.
